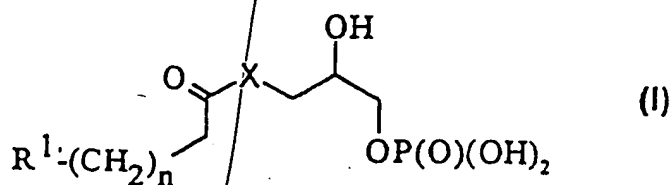


What is claimed is:

Claims:

1. Use of lysophosphatidyl acid derivatives of general formula (I)



wherein

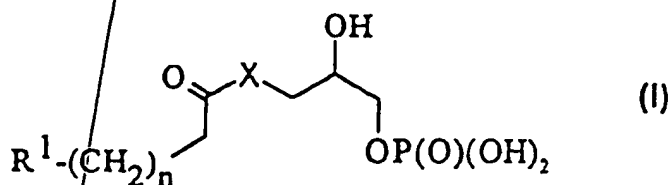
R^1 = alkyl, alkenyl or alkynyl having from 6 to 24 carbon atoms;

n = 0 - 12;

X = oxygen or NH ;

and the physiologically tolerable salts, esters, optically active forms, racemates, and derivatives thereof which can be metabolized *in vivo* to yield compounds of general formula (I), in the production of drugs for treating bone metabolic disorders.

2. Compounds of formula (I)



wherein

R^1 = alkyl, alkenyl or alkynyl having from 6 to 24 carbon atoms;

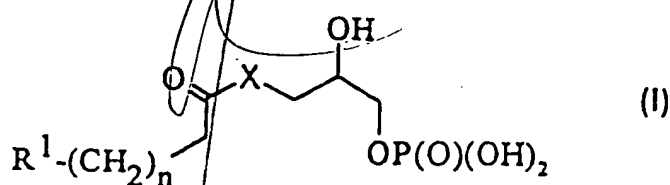
n = 0 - 12;

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X = oxygen or NH;

the compounds (*all-cis*-5,8,11,14)-eicosatetraenoic acid 2-hydroxy-3-phosphonooxypropyl ester, *cis*-9,*cis*-12-octadecadienoic acid 2-hydroxy-3-phosphonooxypropyl ester, (*all-cis*-9,12,15)-octadecatrienoic acid 2-hydroxy-3-phosphonooxypropyl ester, or *cis*-9-octadecenoic acid 2-hydroxy-3-phosphonooxypropyl ester being excluded, and with the proviso that if X represents oxygen, n in the $-(CH_2)_n-CH_2-$ group does not represent the numbers 7, 9, 11, 13, or 15, and the physiologically tolerable salts, esters, optically active forms, racemates, and derivatives thereof which can be metabolized *in vivo* to yield compounds of general formula (I).

3. A drug, containing at least one compound of formula (I) according to claim 2, in addition to common carriers and adjuvants.
4. Use of compounds of formula (I) according to claim 2 in the production of drugs for treating bone metabolic disorders.
5. A drug, containing at least one compound of formula (I)



wherein

R¹ = alkyl, alkenyl or alkynyl having from 6 to 24 carbon atoms;

n = 0 - 12;

X = oxygen or NH;

the compounds (*all-cis*-5,8,11,14)-eicosatetraenoic acid 2-hydroxy-3-phosphonooxypropyl ester, *cis*-9,*cis*-12-octadecadienoic acid 2-hydroxy-3-phosphonooxypropyl ester, (*all-cis*-9,12,15)-octadecatrienoic acid 2-hydroxy-3-

phosphonooxypropyl ester, or *cis*-9-octadecenoic acid 2-hydroxy-3-phosphono-
oxypropyl ester being excluded, and with the proviso that if X represents
oxygen, n in the $-(CH_2)_n-CH_2-$ group does not represent the numbers 9, 11, 13, or
15, and the physiologically tolerable salts, esters, optically active forms,
racemates, and derivatives thereof which can be metabolized *in vivo* to yield
compounds of general formula (I).

6. Use of compounds of formula (I) according to claim 3 in the production
of drugs for treating bone metabolic disorders.

~~add A1~~

add B1

add B2

add C1

add E₃

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